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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,116	12/04/2003	Eugen Hangleiter	22713	7652
535	7590	10/30/2006		
THE FIRM OF KARL F ROSS 5676 RIVERDALE AVENUE PO BOX 900 RIVERDALE (BRONX), NY 10471-0900			EXAMINER HOWELL, DANIEL W	
			ART UNIT 3722	PAPER NUMBER

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,116

Applicant(s)

HANGLEITER, EUGEN

Examiner

Daniel W. Howell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 1-7, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortman et al '815 in view of Stephan '675. Ortman et al shows piston 32, 33, stem 40, and enlarged portion 46 on the stem. Housing 16 contains a rear compartment to the left of the piston, a forward compartment to the right of ring 78, and an intermediate compartment 62 between the ring and piston. As the piston moves to the right in figure 1 and the enlarged portion contacts the ring 76, the compartment between the front of the ring and surface 100 is closed. Fluid is thus only able to escape through passage 66, and fluid flow is regulated by needle valve 70. This slows the forward movement of the piston. The radius on the front of the enlarged diameter portion constitutes a smoothly tapered region. Note ports 26, 28. Locking ring/abutment 96 limits rearward movement of the ring. As seen from figure 4, the ring consists of two parts, an axial tubular portion and a radial flange portion. As seen in figure 1, the housing consists of three parts, 12, 14, and 16, rather than the two parts as set forth in claim 6. It is considered to have been obvious to have made part 16 integral with one of parts 12 or 14, as this merely requires slightly different manufacturing methods which in no way change the operation of the device. Regarding claim 10, Ortman et al is silent as to the distance the ring 78 may move axially. It is considered to have been obvious to have experimented with various dimensions in order to determine that the ring should move within this range in order to provide a fluid flow as desired. Ortman does not explicitly set forth any specific environment where his power cylinder

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is used; rather, Ortman acknowledges that "Power cylinders are in very wide use today...." It is clear that Ortman intended his device to be used in a wide variety of applications requiring axial reciprocation of an object. Stephan shows a spindle 16 having tool 28 which is secured by the conventional spring biased drawbar 38. The drawbar also has the conventional collet/chuck 45 and a bar 52 to knock the tool out of the spindle. The drawbar is moved against the springs M by the five piston motor N. It is considered to have been obvious to have used the power cylinder of Ortman in a spindle environment as shown by Stephan in order to retain and remove a tool from a spindle as Ortman has acknowledged that his device may be used for a wide variety of applications.

3. Claims 1-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephan (3023675) in view of Ortman et al '815. Stephan shows a spindle 16 having tool 28 which is secured by the conventional spring biased drawbar 38. The drawbar also has the conventional collet 45 and a bar 52 to knock the tool out of the spindle. The drawbar is moved against the springs M by the spectacularly complicated five piston motor N. This system has too many parts that are susceptible to wear, such that its lifetime is dubious. Ortman et al shows a much simpler power cylinder. Note piston 32, 33, stem 40, and enlarged portion 46 on the stem. Housing 16 contains a rear compartment to the left of the piston, a forward compartment to the right of ring 78, and an intermediate compartment 62 between the ring and piston. As the piston moves to the right in figure 1 and the enlarged portion contacts the ring 76, the compartment between the front of the ring and surface 100 is closed. Fluid is thus only able to escape through passage 66, and fluid flow is regulated by needle valve 70. This slows the forward movement of the piston. The radius on the front of the enlarged diameter portion constitutes a smoothly

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tapered region. Note ports 26, 28. Locking ring/abutment 96 limits rearward movement of the ring. It is considered to have been obvious to have replaced the motor N of Stephan with the power cylinder of Ortman et al as it has far fewer parts to manufacture and/or wear out. As seen from figure 4 of Ortman et al, the ring consists of two parts, an axial tubular portion and a radial flange portion. As seen in figure 1, the housing consists of three parts, 12, 14, and 16, rather than the two parts as set forth in claim 6. It is considered to have been obvious to have made part 16 integral with one of parts 12 or 14, as this merely requires slightly different manufacturing methods which in no way change the operation of the device. Regarding claim 10, Ortman et al is silent as to the distance the ring 78 may move axially. It is considered to have been obvious to have experimented with various dimensions in order to determine that the ring should move within this range in order to provide a fluid flow as desired.

4. Claims 8 and 9 are allowed.

5. Applicant's arguments filed August 18, 2006, have been fully considered but they are not persuasive. Applicant's arguments are extremely brief. Regarding the Stephan reference, Applicant states that there is no hint of two-speed movement. Stephan was not relied upon for that feature; Ortman et al was applied to show that feature. Regarding Ortman et al, Applicant states that the cushioning is provided by "the simple expedient of providing a deformable part." It is noted that claim 1 merely sets forth a "ring," and Ortman clearly shows a ring 78. Applicant states that their effect "is achieved hydraulically," and it is not clear what the point here is. Ortman et al clearly is also hydraulically actuated, such that the claim limitations have been met.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning the content of this communication from the examiner should be directed to Daniel Howell, whose telephone number is 571-272-4478. The examiner's office hours are typically about 10 am until 6:30 pm, Monday through Friday. The examiner's supervisor, Monica Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, Group 3720 is encouraging FAXing of responses to Office actions directly into the Group at FAX number to 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Daniel Howell of Art Unit 3722 at the top of your cover sheet.



Daniel W. Howell
Primary Examiner
Art Unit 3722